

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 38
Page: 1 of 3
Effective Date: 03/17/93
Organization: Environmental Management

**THIS IS ONE VOLUME OF A SIX VOLUME SET
WHICH INCLUDES:**

VOLUME I: FIELD OPERATIONS (FO)
VOLUME II: GROUNDWATER (GW)
VOLUME III: GEOTECHNICAL (GT)
VOLUME IV: SURFACE WATER (SW)
VOLUME V: ECOLOGY (EE)
VOLUME VI: AIR (AP)

**TABLE OF CONTENTS
FOR VOLUME III: GEOTECHNICAL**

Procedure No.	Title	Rev. No.	Effective Date
GT.01	Logging Alluvial and Bedrock Material	2	05/12/92
DCN 92.01	Specialized Logging Form	2	11/13/92
DCN 93.01	Logging	2	01/15/93
DCN 93.02	Logging Deliverables Standard Practices	2	01/25/93
GT.02	Drilling and Sampling Using Hollow Stem Auger Techniques	2	05/12/92
DCN 92.01	Superseded by DCN 92.03	2	07/27/92
DCN 92.02	Superseded by DCN 92.03	2	07/27/92
DCN 92.03	Addition of the Drum Characterization	2	07/27/92
DCN 92.04	Prevention of Down Hole Contamination	2	08/26/92
DCN 92.05	Field Modification	2	12/04/92
DCN 93.01	Analytical Samples	2	01/25/93
*DCN 93.02	Drum Characterization	2	03/17/93
GT.03	Isolating Bedrock from Alluvium with Grouted Surface Casing	2	05/12/92
DCN 92.03	Expired	2	09/03/92
DCN 93.01	Data Quality Objectives for PLF Investigations	2	02/10/93

**DOCUMENT CLASSIFICATION REVIEW WAIVER
PER R.B. HOFFMAN, CLASSIFICATION OFFICE
JUNE 11, 1991**

This is a
CONTROLLED DOCUMENT
EG&G - ROCKY FLATS PLANT
ENVIRONMENTAL MANAGEMENT

This is a RED Stamp

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 38
Page: 2 of 3
Effective Date: 03/17/93
Organization: Environmental Management

Procedure No.	Title	Rev. No.	Effective Date
GT.04	Rotary Drilling and Rock Coring	2	05/12/92
GT.05	Plugging and Abandonment of Boreholes	2	05/12/92
DCN 92.01	Field Modification	2	12/09/92
DCN 93.01	5.2 Revision	2	02/04/93
GT.06	Monitoring Wells and Piezometer Installation	2	05/12/92
DCN 92.05	Schematic Diagram Land Fill Methane Wells	2	06/04/92
DCN 92.06	EXPIRED (replaced with DCN 93.01)	2	
DCN 92.07	Provide Consistency	2	12/17/92
DCN 93.01	Borehole Advancement	2	01/04/93
DCN 93.02	Well Point Installation	2	01/28/93
DCN 93.03	Piezometer Logging Modification	2	02/04/93
DCN 93.04	Wells - 5.3.2.2 Revised	2	02/10/93
DCN 93.05	Temperatures - 5.3.2.3 Revised	2	02/10/93
DCN 93.06	Provide Numbers to Reference Corresponding Items	2	02/23/93
* DCN 93.07	DCN 93.01 Modification	2	03/17/93
GT.07	Logging and Sampling of Test Pits and Trenches	2	05/12/92
GT.08	Surface Soil Sampling	2	05/12/92
DCN 92.01	Clarification of Soil Sampling	2	09/03/92
DCN 92.02	Consistency Change	2	10/12/92
DCN 93.01	Work Plan Consistency	2	01/05/93
DCN 93.02	New Section-Surficial Profiling	2	01/15/93
DCN 93.03	CDH Compliance	2	01/25/93
GT.09	Soil Gas Sampling and Field Analysis	2	05/12/92
GT.10	Borehole Clearing	2	05/12/92
GT.11	Plugging and Abandonment of Wells	2	05/12/92
GT.15	Geophysical Borehole Logging	2	05/12/92

~~This is a RED Stamp~~

**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

Manual No.: 5-21000-OPS-GT
Procedure No.: Table of Contents, Rev 38
Page: 3 of 3
Effective Date: 03/17/93
Organization: Environmental Management

Procedure No.	Title	Rev. No.	Effective Date
GT.17	Land Surveying	2	05/12/92
GT.18	Surface Geophysical Surveys	2	05/12/92
DCN 92.01	Surface Magnetic Surveys Procedure	2	09/30/92
DCN 92.02	Modification to Stacking Requirements	2	10/15/92
DCN 92.03	Modification to Method of Taking Readings	2	10/15/92
DCN 93.01	5.4 Field Procedure Revisions	2	01/25/93
GT.19	Field Gas Chromatographs	2	05/12/92
GT.20	Procedures for Soil Interstitial Water Sampling and Sampler Installation	2	05/12/92
GT.21	Cone Penetrometer Testing	1	05/12/92
DCN 93.01	CPT Rods	1	01/15/93
*DCN 93.02	Offsets	1	03/17/93
GT.24	Approval Process for Construction Activities on or Near Individual Hazardous Substance Sites (IHSSs)	0	05/12/92

This is a
CONTROLLED DOCUMENT ENVIRONMENTAL MANAGEMENT
 EG&G - ROCKY FLATS PLANT
ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)
 This is a RED Stamp

Procedure Number 5-21000-OPS-GT.2, Rev. 2 *du*

Page 1 of 1

Title Drilling and Sampling using Hollow-Stem Auger Techniques	Date <u>3-17-93</u> 3-2-93 <i>SRD</i>	DCN Number 5-21000-OPS- <u>93.02</u>
Expires <u>3-17-94</u> <i>SRD</i>	Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<i>du</i>
Scope Limitation <u>none</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	<i>sub 3-2-93</i> 11 of 14	paragraph 4 5.3.4	<p>AS 4th paragraph of section</p> <p>Add the following to the end of the paragraph: "During drilling of boreholes, if a recent borehole (within one year) that has been sampled is located within 10 feet of the present borehole, no additional samples for drum characterization purposes only will be collected. All cored material will be saved in case it is needed for future analyses."</p> <p>Ref DCN 92-03 for section 5.3.4 and DCN 92-05 for "NOTE" to end of section 5.3.4</p>

DOCUMENT CLASSIFICATION REVIEW WAIVER
PER R.B. HOFFMAN, CLASSIFICATION OFFICE
JUNE 11, 1991

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

In cases where the field sampling plan does not call for analytical samples, the only samples necessary are collected for drum characterization. Where a recently drilled borehole in close proximity provides this needed characterization data, no additional sampling is necessary.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>[Signature]</i>	QAPM	X	3/16/93	<i>[Signature]</i>	User	X	3/2/93
<i>[Signature]</i>	EOM	X	3-2-93	<i>[Signature]</i>	USER	X	2-Mar-93
				<i>[Signature]</i>	EQS	X	3-2-93
Approval of Responsible Manager <i>[Signature]</i>				Date 3/2/93	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If Yes, By What Date? upon receipt
						Date Posted	